Macroeconomics, Part IIA
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# Supervision

## International Macroeconomic Policy

**Short question** (250 words max)

1. When there is imperfect substitutability between domestic and foreign assets, an unanticipated increase in the domestic money supply could reduce the domestic nominal interest rate while keeping the nominal exchange rate fixed. True or false? Explain.

**Problem**

2. Consider the following model of a small open economy (Home), which interacts with the rest of the world (Foreign):

$$\begin{aligned} i &= i^* + \mathrm{E}[\mathbf{e}] - \mathbf{e} \\ \mathbf{M} - \mathbf{P} &= \lambda \mathbf{Y} - \kappa i \\ \mathbf{Y} &= \alpha (\mathbf{e} + \mathbf{P}^* - \mathbf{P}) \end{aligned}$$

where $i$ is the Home nominal interest rate, $i^*$ the Foreign nominal interest rate, $\mathbf{e}$ the nominal exchange rate expressed as the Home price of Foreign currency, $\mathrm{E}[\mathbf{e}]$ the expected future exchange rate, $\mathbf{M}$ the Home money supply, $\mathbf{P}$ the Home aggregate price level, $\mathbf{P}^*$ the Foreign aggregate price level, $\mathbf{Y}$ Home aggregate output, and all boldface variables are in logs. People have rational expectations. In the short run, the aggregate price level $\mathbf{P}$ is fixed. In the long run, the price level $\mathbf{P}$ is flexible and output is at its natural rate $\bar{\mathbf{Y}}$. Assume that $\lambda = \kappa = 1$, $\alpha = \frac{1}{2}$, $i^* = \mathbf{P}^* = \bar{\mathbf{Y}} = 0$ and $\mathbf{M} = \bar{\mathbf{M}}$. [Tripos 2003]

(a) Give a brief economic interpretation of the three displayed equations above.

(b) Compute the long run equilibrium values of $i$, $\mathbf{P}$, $\mathbf{e}$ and $\mathrm{E}[\mathbf{e}]$.

(c) Suppose that there is an unanticipated permanent decrease in the (log) Home money supply from $\mathbf{M} = 0$ to $\mathbf{M} = -1$. Compute the new short run equilibrium level of output $\mathbf{Y}$ and the exchange rate $\mathbf{e}$, and give an intuitive explanation of the short run effect.

(d) Does this decrease in the money supply lead to exchange rate overshooting? Explain intuitively how the economy adjusts to the new long run equilibrium.

**Essay questions** (1000 words max)

3. Are speculators irrational when they attack the currency peg of a country that still has foreign exchange reserves? [Tripos 2001]

4. What does the theory of optimal currency areas tell us about whether the UK should join the European Monetary Union? [Tripos 1998]

**Main Reading**

- Krugman and Obstfeld (2005), *International Economics: Theory and Policy*, chapters 12, 17-22.

**Supplementary References**

- De Grauwe (2000), *The Economics of Monetary Union.*
- De Grauwe (1996), *International Money: Post-War Trends and Theories*, chapters 2-4, 10.
- Sachs and Larrain (1993), *Macroeconomics in the Global Economy*, chapter 13.